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Animal and
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WILDLIFE SERVICES—NORTH CAROLINA

Contact Information:

Jon F. Heisterberg, NC Wildlife Services State Director

6213-E Angus Drive, Raleigh, NC 27617

Phone: (919) 786-4480 FAX: (919) 782-4159

Toll-Free Number: 1-866-4USDAWS 1-866-487-3297

E-mail: jon.f.heisterberg@aphis.usda.gov

Web site: www.aphis.usda.gov/wildlife_damage

USDA Resolves Wildlife Conflicts in North Carolina

Every day, residents, industries, organizations and agencies call on North Carolina Wildlife Services (WS) for help in protecting agriculture, human health and safety, natural resources, and property from damage or threats posed by wildlife. WS' professional wildlife biologists respond with effective, selective, and humane strategies to resolve wildlife conflicts.

WS works to protect property and reduce human health and safety risks at airports, schools, and along roadways. The program also protects people, pets, and livestock from wildlife-borne diseases such as rabies; guards natural resources, such as fisheries and timber, from wildlife depredation; and educates the public about wildlife and wildlife damage management. Specific projects conducted by NC WS include protecting endangered shorebirds and sea turtles from predation; conducting sampling and monitoring for avian influenza and rabies; and managing damage caused by beavers, Canada geese, pigeons, starlings, and other wildlife.

Top 5 Major Assistance Activities:

- Protecting property and public health/safety from beaver damage
- Protecting civil and military aviation from wildlife strikes
- Monitoring and surveillance of wildlife disease
- Managing damage caused by Canada geese
- Managing damage caused by pigeons, starlings, and blackbirds

Top 5 WS Research Projects of Interest to North Carolina:

- Improving aquatic rodent damage management methods
- Identifying and reducing wildlife hazards to aviation
- Evaluating wildlife disease issues impacting human, livestock, and wildlife health
- Managing wildlife transmission of rabies
- Managing bird predation to aquaculture

Applying Science & Expertise to Wildlife Challenges

WS offers information, advice, equipment, and materials that enable many people to resolve wildlife conflicts on their own. Often, this *technical assistance* can be provided over the phone. WS also provides on-site expertise, or *direct assistance*, to manage complex wildlife problems that cannot be safely resolved by others. To support this effort, WS conducts *scientific research* across the nation to develop answers to new problems posed by wildlife and to ensure the program benefits from the latest science and technology.

Protecting Agricultural Resources—WS assists dairy farmers concerned about starlings feeding on high-quality feed supplements, which impacts health, sanitation, and milk production. WS has registered an avicide and helps farmers safely use this chemical to reduce starling populations at dairy operations. The program also works with the NC Department of Agriculture (NCDA) to monitor feral swine for swine brucellosis and pseudorabies.

Protecting Human Health and Safety at Airports—Wildlife collisions with airplanes cost U.S. civil aviation more than \$550 million annually and pose a significant hazard to flight crews and passengers. The Department of Defense (DoD) experiences similar concerns related to aviation safety. NC WS personnel assist civilian and military airports statewide to evaluate wildlife hazards and develop wildlife hazard management plans. They train airport personnel in techniques to reduce wildlife/aircraft collision risks. WS personnel also provide direct assistance to airports. Together, these efforts reduce the potential costs and dangers associated with wildlife strikes. In FY06, WS served 10 civilian airports and six DoD airbases. The program continues to provide cooperative services to the NC Division of Aviation at all 65 general aviation airports and nine regional



airports. WS also trained 199 airport staff and flight crew members on basic wildlife/aviation hazards and mitigation methods.

The WS support programs at North Carolina's U.S. Air Force and Marine Corps bases continue to be nationally recognized as hallmark programs in their respective service branches. Technical consultations regarding wildlife hazard concerns extend to bombing ranges and military training routes in North Carolina and adjoining states. The airport safety program has conducted wildlife hazard assessments at Naval Station Rota, Spain and continues to study wildlife hazard issues at a proposed Outlying Landing Field for the US Navy. The program expects to travel to Marine Corps Air Station (MCAS) Iwakuni, Japan to use small mobile bird detection radar to collect wildlife hazard information.

NC WS personnel work closely with WS' National Wildlife Research Center (NWRC) scientists to develop management techniques to reduce wildlife hazards at airports. In FY06, WS personnel completed projects involving survey methodology for assessing wildlife populations at airports and the effects of bio-solids application on airport grassland habitats. The program is collaborating on tests designed to determine the viability of fescue grass types, which may reduce

wildlife use of grassland areas at Piedmont Triad International Airport and MCAS Cherry Point. WS and NWRC personnel also are collaborating with the USN Space and Naval Warfare Systems Command and academic and industry leaders on further development of portable radar units used to detect and mitigate real-time bird hazards at airports.

Urban Human Health and Safety Issues—

WS works with municipal water treatment plants and county and city parks and golf courses to control resident Canada goose problems. This work includes egg adding, harassment and physical removal, if necessary.

Wildlife Disease Issues—WS continues to assist the NC Wildlife Resources Commission and NCDA in monitoring for diseases in wildlife populations that potentially could impact agriculture or human health, such as avian influenza, rabies, feral swine diseases, and chronic wasting disease. WS also participates in a national program to eradicate rabies in the U.S. through vaccination of raccoons and other rabies-susceptible wildlife.

Protecting Sea Turtles and Shore

Birds—WS contracts with the National Park Service (NPS) and the Bird Island Preservation Society to remove predators from barrier islands to protect endangered or threatened sea turtles and shorebird nesting colonies. The NPS currently funds development of an Environmental Assessment to address the environmental impact of these activities.

Protecting Property—WS biologists advise property owners on wildlife damage issues ranging from Canada geese in the backyard to squirrels and bats in the attic. WS continues as an active partner in annual training for certifying and licensing Wildlife Damage Control Agents in the state, which enables private enterprise to address many residential wildlife damage issues.

Protecting Resources from Beaver

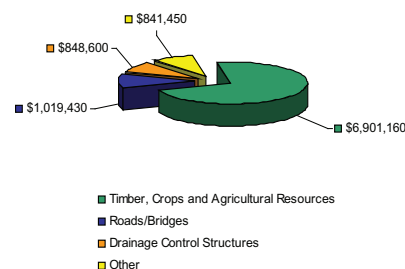
Damage—In North Carolina, beaver his-

torically were a valuable economic and natural resource. More recently, however, low demand for beaver products resulted in decreased trapping and subsequent increased beaver numbers. Beaver now occupy nearly all state watersheds and statewide population estimates are approaching 500,000. Escalating beaver activity brings some benefits, such as increased wetland habitat, reduced downstream sedimentation, and improved water quality, but also detrimental impacts. In 2006 WS received more than 1,500 requests for assistance with beaver damage problems, typically involving damage to roadways and bridges, agriculture and forest resources, and flooding of municipal sewer and water treatment facilities.

To address these, WS worked with the NC Wildlife Resources Commission (NCWRC) and state, county, and federal officials to establish the Beaver Management Assistance Program (BMAP). The BMAP assists the Department of Transportation (DOT), local governments, soil and water conservation districts, private landholders, and others with beaver problems. WS runs the programs through a cooperative service agreement with NCWRC, with funding from state, county, federal and private sources. In FY06, BMAP activities prevented the loss of, or damage to, an estimated \$9.6 million in resources. The benefit-cost ratio for these services was a remarkable \$6 in resources saved for every \$1 spent. FY06 BMAP activities protected the driving public and saved the DOT an estimated \$1 million in repair costs by alleviating flooded roadways and damaged roadbeds.

WS routinely uses explosives to remove beaver dams flooding property. WS personnel are trained and certified in the safe and effective use of explosives prior to conducting any work. Currently 16 NC WS personnel are certified to use explosives.

Resources Saved from Beaver Damage in FY 2006



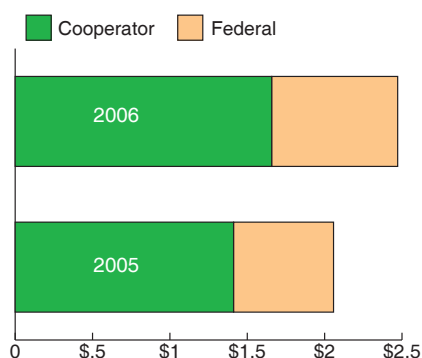
Looking to the Future

In North Carolina, public health and safety are significant concerns. Program areas needing additional attention include protecting the flying public and military personnel, protecting the traveling public from beaver-flooded and washed-out roadways and rail beds, and protecting the public from the spread of rabies. The public's awareness increased after aircraft collisions with birds, derailment of a train carrying hazardous chemicals after beaver undermined a railroad trestle, and increased incidences of rabies throughout the state, including attacks on people by rabid beavers. Monitoring wildlife for signs of avian influenza also will be a high priority as USDA APHIS continues to implement early warning strategies for this potentially devastating wildlife and human disease. With increases in federal and non-federal cooperatively-funded programs, WS envisions increasing work on all of these activities.

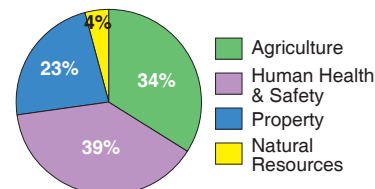
North Carolina Wildlife Services Funding

In addition to receiving federally allocated funds, WS also receives funding from cooperators who have a vested interest in the program: private individuals, businesses, and other federal, state and local government agencies. In most cases, these cooperators need help to resolve wildlife damage problems or they play a role in wildlife damage management.

Total Funding (Millions)



Resources Protected FY06 % of Total Funds



USDA is an equal employment provider and employer.

Major Cooperators:

- North Carolina Wildlife Resources Commission
- North Carolina Department of Transportation
- North Carolina Division of Aviation
- Seymour Johnson Air Force Base
- Marine Corps Air Station Cherry Point
- Department of the Navy
- Piedmont Triad International Airport
- Brunswick, Columbus, Cumberland, Duplin, Nash, New Hanover, Pender, Pitt, and Robeson counties.
- National Park Service